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THE DUTCH DAPP-BQ: IMPROVEMENTS, LOWER- AND HIGHER-ORDER DIMENSIONS, AND RELATIONSHIP WITH THE 5DPT

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After modifying 53 items in a previous Dutch translation of the Dimensional Assessment of Personality Pathology-Basic Questionnaire (DAPP-BQ; Livesley & Jackson, 2002), the present DAPP-BQ scales (with or without Self-Harm included) were subjected to a principal components analysis with oblimin or varimax rotation in a general population sample of 478 subjects, retaining four factors. All four (higher-order) factors (Emotional Dysregulation, Dissocial, Inhibition, and Compulsivity) proved identical to the factors originally derived in Canada, with Tucker coefficients of factor similarity approaching unity. Particularly the (unexpected) finding that the present Dutch version of the DAPP-BQ also resulted in an Inhibition factor (and not, like the former Dutch version, in an Intimacy Problems factor) was considered positive. In addition, a principal components analysis with oblimin rotation was conducted on the 282 items contained in the 18 DAPP-BQ scales, investigating the lower-order structure of the DAPP-BQ; in this case, 18 factors were retained. Although the structure originally derived by Livesley and colleagues could not be recovered completely, the degree of similarity was of such a magnitude that the 18 DAPP-BQ scales were considered to give a dependable account of the "true" lower-order structure of disordered personality. Moreover, based on the finding that the 18 scales are sufficiently reliable (Cronbach's alpha) and correlate as predicted in a subsample of 284 subjects with the normal personality scales of Van Kampen's 5DPT (or, Five-Dimensional Personality Test), the DAPP-BQ appears to be a valuable instrument.

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An earlier paper (Van Kampen, 2002) presented information on the factor structure, reliability, and validity of a Dutch translation of Livesley's DAPP-BQ or Dimensional Assessment of Personality Pathology-Basic Questionnaire (Livesley & Jackson, 2002). Although it could be ascertained that the translated DAPP-BQ scales, similar to what was originally observed in Canada (Schroeder, Wormworth & Livesley, 1994; Livesley, Jang & Vernon, 1998), gave rise to the extraction of four (higher-order) factors, only three of them (Emotional Dysregulation, Dissocial Behavior, and Compulsivity) proved to be almost identical to the factors found in the Canadian instrument. However, the remaining Dutch Intimacy Problems factor was dissimilar to the Canadian Inhibition factor, a situation that is at least embarrassing, because the same four-factor structure as found in Canada could also be observed in Germany (Pukrop, Gentil, Steinbring, & Steinmeyer, 2001), the United States (Bagge & Trull, 2003), and China (Zheng et al., 2002).

When considering reasons for this dissimilarity, it was noted that whereas the Canadian Inhibition factor—at least in the investigation by Schroeder et al. (1994)—was loaded by the lower-order scales for Intimacy Problems, Social Avoidance, Restricted Expression, and Identity Problems, the Dutch Intimacy Problems factor had a loading only from the Intimacy Problems scale. In the investigation by Livesley et al. (1998), two lower-order scales (Restricted Expression and Intimacy Problems) were reported to load Inhibition, although, in an unpublished study by Jang (personal communication, February 8, 2000), using a partly overlapping sample of 942 general population subjects (see below), Social Avoidance was also found to load that (oblimin-rotated) factor in the pattern matrix, and Social Avoidance and Identity Problems in the structure matrix. Furthermore, in our investigation the three scales (Restricted Expression, Identity Problems, and Social Avoidance) involved in the broader content of the Inhibition factor proved to load exclusively on Emotional Dysregulation. Another point of discrepancy relates to the Oppositionality scale that in the Canadian investigations (Jang's study included) was found to load negatively on Compulsivity, whereas in our study this scale did not load on that particular higher-order factor. Based on these findings, we assume that the original Dutch translation of the DAPP-BQ, though promising, is not yet optimal. Moreover, because in Livesley's studies two slightly differently worded versions of the DAPP-BQ were used, the present author (in collaboration with Drs. Edwin de Beurs and Thomas Rinne from Leiden University Medical Center) decided not to inspect solely the contents of the four lower-order scales that did not behave exactly as expected, but to critically compare the two Canadian versions and to suggest alternative translations for the whole DAPP-BQ if they seemed more in line with Livesley's intentions. Of the 290 DAPP-BQ items 53 were changed, some only slightly and some more extensively. Of the 53 items, most belong to the scales that measure Oppositionality (8 items), Stimulus Seeking (6 items), Cognitive Distortion (4 items), Restricted Expression (4 items), Callousness (4 items),

Rejection (4 items), and Suspiciousness (4 items). Thus, with respect to the four lower-order scales that proved to have relatively unexpected loadings, only the Oppositionality scale was composed of a large number of modified items. Of the 3 times 16 items contained in the Social Avoidance, Restricted Expression, and Identity Problems scales, only five had been translated anew.

The principal aim of the present study is to investigate the *higher-order* factor structure of the new Dutch translation of the DAPP-BQ and to compare the factor analytic results found in our investigation with the Canadian factor structure, particularly as observed in the study by Jang mentioned above that resulted in the same four higher-order dimensions as those extracted by Schroeder et al. (1994) and Livesley et al. (1998). In fact, the datasets used in the three investigations do overlap considerably and form part of a grand dataset of 1,764 general population subjects (1,171 females and 593 males) with a mean age and standard deviation of 32.76 ± 13.50 years (Jang, personal communication, July 27, 2005). In Jang's (sub)sample, 581 females and 361 males, most of them aged between 16 and 70 years, were used. This sample included students and staff of the University of British Columbia, employees of a general hospital, and persons from the general community (Vancouver, BC). Despite the existence of the two published Canadian studies, we opted for Jang's investigation because only in that study were all 18 DAPP-BQ scales—or a reduced set of 17 scales, omitting Self-Harm—analyzed, and all loadings presented. In the studies by Schroeder et al. (1994) and Livesley et al. (1998), the dimensions Self-Harm and Cognitive Distortion (Schroeder) or only Self-Harm (Livesley) were not included because of their low item endorsement rates in general population subjects. As (a) the original Dutch DAPP-BQ study (Van Kampen, 2002) made use of the data provided by Jang, (b) both the original and the present Dutch investigations compare the Dutch factor structure with the Canadian one after conducting a principal components analysis with oblimin rotation on the intercorrelation matrix for at least 17 scales, and (c) the higher-order structure of the revised Dutch DAPP-BQ will be compared with the one found in my previous investigation, Jang's unpublished study obviously is the only one that can be used as a target or model for the current study. Moreover, in the study by Livesley et al. (1998) only loadings of at least 0.40 are presented, which makes a full comparison with the Dutch results (by computing Tucker (1951) coefficients of factor similarity) impossible. A final reason for selecting Jang's study relates to the fact that the data made available by him contain the structure matrix. As this matrix is the only one that directly reflects the correlations of the variables with the factors (see also Gorsuch, 1974), we opted for Jang's findings instead of the obliquely rotated factor patterns presented in Schroeder et al.'s (1994) and Livesley et al.'s (1998) investigations. However, because the new Dutch translation of the DAPP-BQ (except for Oppositionality and Stimulus Seeking) corresponds well with the old one, the factor structure of the updated Dutch version is *not*

expected to deviate greatly from the structure observed by Van Kampen (2002). That is, besides the Emotional Dysregulation, Dissocial Behavior, and Compulsivity factors, an Intimacy Problems factor is still anticipated, but not Inhibition.

Apart from the higher-order structure, we also examine the *lower-order* factor structure of the Dutch DAPP-BQ. In that respect, it is of interest that in a study by Livesley, Jackson, & Schroeder (1992), a self-report measure to assess 100 highly prototypical and less prototypical qualities that provide a representative account of the overall domain of personality disorder (see Livesley, Jackson, & Schroeder, 1989), was subjected to a principal components analysis both in a sample of 158 personality-disordered patients and a sample of 274 general population subjects. In both groups, a 15-factor solution seemed to account best for the data. Calculating the Tucker (1951) factor congruence coefficients, the degree of factor similarity between the two factor structures was considered to be high by Livesley et al. (1992). However, of the 15 congruence coefficients, five were found to be less than 0.80, the minimum figure reported to indicate the situation in which two factors usually will be considered equal (Haven & Ten Berge, 1977). Notwithstanding, both samples were combined, also yielding a 15-factor solution. In terms of the labels later assigned to the scales of the DAPP-BQ, these 15 factors are: Anxiousness + Identity Problems (originally one factor, called Generalized Distress), Rejection, Restricted Expression, Compulsivity, Stimulus Seeking, Insecure Attachment, Submissiveness, Intimacy Problems, Oppositionality, Callousness, Conduct Problems, Cognitive Distortion, Affective Lability, Narcissism, and Social Avoidance. However, we should note that the current scales of the DAPP-BQ do not exactly coincide with these factors. For, after comparing the 15 components in the two samples mentioned above, Schroeder, Wormworth, & Livesley (1992) identified clusters of scales that loaded together in both analyses. Given the situation that at least some factors did not show a high degree of factor similarity, the content of these clusters was generally found to be narrower in scope than the content of the factors in both groups. Nevertheless, 14 clusters could be identified that were related to 14 of the 15 factors. Splitting the 15th factor—actually the first one (Generalized Distress) extracted in both samples—into two clusters (because of its broad content) and adding two other clusters, Suspiciousness and Self-Harm (that were felt to be clinically important Axis II features), to the list of 16 dimensions, the DAPP-BQ was finally composed of 18 scales. Although the 15 factors extracted in the combined group cannot be considered to be identical to the 16 DAPP-BQ scales (with Anxiousness and Identity Problems instead of Generalized Distress) mentioned above, a factor analysis at the *item* level of the DAPP-BQ is nevertheless expected to result in a structure more or less akin to the 15 lower-order factors originally identified by Livesley et al. (1992), possibly in combination with the Suspiciousness and Self-Harm factors that were later added to the list of 16 clusters. If not, one might then question the plausibility of Livesley's

instrument as a classification scheme of disordered personality, because the 15 factors (as indicated above) are considered to give a comprehensive description of the total domain of personality pathology.

A third aim of the present study is to investigate the alpha reliability and validity of the newly translated DAPP-BQ. In our previous study (Van Kampen, 2002), the Cronbach's alpha coefficients of the 18 DAPP-BQ scales proved to be satisfactory, ranging from 0.78 to 0.94, and correlating 0.80 with Canadian values that were kindly made available by Jang (personal communication, February 8, 2000). For the updated version of the Dutch DAPP-BQ, similar values are expected. Concerning the validity of the modified instrument, Pearson's correlations will be presented between the various DAPP-BQ scales and higher-order factors on the one hand, and the scales of Van Kampen's (2005a) 5DPT or Five-Dimensional Personality Test on the other hand. The 5DPT is the successor of the 4DPT (Van Kampen, 1997, 2000) that was used in the former Dutch DAPP-BQ study. The 5DPT was developed in an attempt to identify the basic dimensions of normal personality as seen from a clinical-theoretical perspective. In agreement with Eysenck's (1994) claim that a basic personality factor must form part of a general nomological network, but also criticizing his "genotypic" theory about P or Psychoticism, Van Kampen (1997, 2005a) postulated four basic dimensions, namely S or Insensitivity, E or Extraversion, N or Neuroticism, and G or Orderliness, of which S and G took the place of Eysenck's P construct. Also criticizing Eysenck's "phenotypic" or "symptomatic" P dimension, a continuum in fact unrelated to the "genotypic" P dimension (Van Kampen, 1993), this factor was replaced by A or Absorption. Of particular interest in the present context is the fact that the 5DPT dimensions S, E, N, G, and A have been found to correlate substantially with the NEO-FFI (Costa & McCrae, 1992) factors Agreeableness ($r = -0.60$), Extraversion ($r = 0.78$), Neuroticism ($r = 0.79$), Conscientiousness ($r = 0.56$), and Openness to Experience ($r = 0.59$) (Van Kampen, 2005a). As the four first-mentioned NEO dimensions have been found by Jang & Livesley (1999) and Schroeder et al. (1992) to correlate with, respectively, the DAPP-BQ factors Dissocial, Inhibition (negative), Emotional Dysregulation and Compulsivity, I expect similar associations for the 5DPT dimensions S, E, N, and G. In fact, in our previous study (Van Kampen, 2002) these expectations were clearly fulfilled for the 4DPT, though, of course, only for the factors Dissocial (correlation with S: 0.68), Emotional Dysregulation (correlation with N: 0.74), and Compulsivity (correlation with G: 0.73), although even the Dutch Intimacy Problems factor was found to be negatively correlated with E ($r = -0.43$). Besides the correlations with the higher-order DAPP-BQ factors, correlations were also obtained with the lower-order scales of that questionnaire. These correlations were also as expected; that is, the scales associated with a particular higher-order factor were usually found to correlate with the 4DPT dimensions in the same way as did the higher-order DAPP-BQ factors. With the advent of the 5DPT, similar results are expected, albeit that for the Absorp-

tion dimension additional correlations may be found. As Absorption, in contrast to Openness to Experience (see, e.g., Austin & Deary, 2000), has been found by Van Kampen (2005a) to correlate (albeit modestly) with psychotic-like features, we may expect a positive correlation between 5DPT A and DAPP-BQ Cognitive Distortion.

In sum, the purpose of the present study is to evaluate (a) whether the higher-order structure of the revised Dutch DAPP-BQ continues to fail to replicate in part the structure of the DAPP-BQ reported in previous Canadian studies, (b) whether the lower-order structure of the revised DAPP-BQ is consistent with the structure described by Livesley et al. (1992) and Schroeder et al. (1992), (c) whether the revised DAPP-BQ demonstrates adequate internal consistency, and (d) whether the revised DAPP-BQ demonstrates adequate convergent validity with a more general measure of personality structure.

METHOD

PARTICIPANTS AND PROCEDURE

A total of 1,520 general population subjects (50% females) from four age groups (15–24, 25–34, 35–44, and 45–54 years) were randomly drawn from the patient files of 15 general practitioners from the following Dutch cities: Amsterdam (735,500 inhabitants), The Hague (457,700), Tilburg (197,400), Groningen (175,600), Leiden (117,200), Heerlen (95,000), Kerkrade (50,700), Waddinxveen (26,900), Ermelo (26,800), Reusel (12,400), and Laren (11,900). Of these subjects, 1,040 were requested to fill in a booklet sent to them by mail containing (besides additional scales) the newly translated DAPP-BQ and the Five-Dimensional Personality Test (5DPT; Van Kampen, 2005a). The remaining 480 subjects were asked to fill in only the DAPP-BQ. Of the 478 booklets that were returned, 322 were filled in by females, 154 by males, and 2 by persons of unknown gender. Finding that 35 booklets were returned by the post office for various reasons, the response rate is 32.2%. Although this rate is rather low, the 5DPT means and standard deviations were not deviating from the normative data, suggesting that the present sample can still be considered adequate. The subjects had a mean age of 36.03 years and a standard deviation of 11.64 years. For 284 persons, data on both inventories are available, whereas for 194 subjects, only data on the DAPP-BQ are known.

MEASURES

The DAPP-BQ is a 290-item self-report device for the assessment of 18 lower-order and 4 higher-order dimensions of personality pathology. The 18 scales each consist of 16 statements that describe personal preferences and behaviors, except the scales for Self-Harm and Suspiciousness, which contain 12 and 14 items, respectively. In addition, 8 items are included to

measure social desirability. The coefficient alpha reliabilities of the 18 DAPP-BQ scales ranged from 0.87 to 0.94 in a sample of 274 normal subjects, and from 0.84 to 0.95 in a sample of 158 personality-disordered patients (Schroeder et al., 1992; Jang, personal communication, April 12, 2000). The test-retest reliabilities over a 3-week period ranged from 0.81 to 0.93 (Livesley et al., 1998). The items of the DAPP-BQ are rated on a 5-point Likert scale, with scores ranging from 1 ("very unlike me") to 5 ("very like me").

As indicated above, the 5DPT (a 100-item questionnaire) measures five basic dimensions of normal personality as seen from a clinical-theoretical perspective: S or Insensitivity, E or Extraversion, N or Neuroticism, G or Orderliness, and A or Absorption. The 5DPT model (see Van Kampen, 2005a) is regarded as a modified version of Eysenck's PEN model. In constructing the 5DPT, much attention was paid to the invariance of the five factors with respect to several important sample parameters, including age, sex, and education. Theoretically, this was substantiated by criticisms of idiographically oriented researchers that the loadings obtained in factor analysis may only apply to people in general, but not necessarily to (subgroups of) individual persons (Van Kampen, 2000; Grice, 2004). All Tucker coefficients of factor similarity proved to be at least 0.95. Each 5DPT dimension is measured by 20 items that must be answered with "yes" or "no." The 5DPT scales were found to be highly reliable, with coefficient alphas ranging from 0.82 to 0.92, and 4-week to 5-week stability coefficients (averaged over two samples) ranging from 0.79 to 0.93. With respect to the validity of the 5DPT (see Van Kampen, 2005a), meaningful correlations were obtained between the 5DPT and several other instruments, including the NEO-FFI (Costa & McCrae, 1992), the DES-II (Carlson & Putnam, 1993), the Schizotypic Syndrome Questionnaire (Van Kampen, 2005b), the Coolidge Axis Two Inventory (Coolidge, 1984), and Thalbourne's (1998) Transliminality Scale.

In addition to the DAPP-BQ and 5DPT, each subject's highest educational level was assessed using an 8-point scale.

RESULTS

LOWER-ORDER FACTORS

To investigate whether the present DAPP-BQ still reflects the originally derived 15-factor structure with, perhaps, the Generalized Distress dimension split into two dimensions (Anxiousness and Identity Problems), and the Suspiciousness and Self-Harm dimensions added to these 15 or 16 factors, all 282 items contained in the 18 scales of the DAPP-BQ were fed into a principal components analysis, extracting the first 18 components and rotating them by means of oblimin. These factors explain 48.24% of the total variance. Instead of showing all 5,076 loadings in the structure matrix, Table 1 presents for each of the 18 DAPP-BQ scales the percentage

TABLE 1. Lower-Order DAPP-BQ Factors: Percentages of Items (SU, CD, etc.) Having a Loading of at Least 0.35 on 18 Obliquely-Rotated Factors (Percentages of 60 and Higher are Printed in Bold)

Factor	SU	CD	IP	AF	ST	CP	RE	CA	OP	IN	RJ	AN	CO	SP	SA	NA	IA	SH	% ≥ 60
1	18.8	**93.8**	56.3	50.0	0	0	0	0	25.0	0	0	**68.8**	0	35.7	43.8	6.3	0	41.7	CD, AN
2	0	0	0	0	**87.5**	0	0	0	0	0	6.3	6.3	12.5	0	0	0	0	0	ST
3	0	0	0	0	0	0	0	0	0	**81.3**	0	0	0	0	0	0	0	0	IN
4	0	0	0	0	0	**100**	0	0	0	0	0	0	0	0	0	0	0	0	CP
5	6.3	**62.5**	**81.3**	31.3	0	0	0	0	12.5	0	0	56.3	18.8	14.3	25.0	0	12.5	**100**	SH, IP, CD
6	12.5	0	31.3	6.3	0	0	0	0	0	0	0	**75.0**	0	28.6	18.8	12.5	**93.8**	0	IA, AN
7	0	0	0	6.3	18.8	6.3	0	0	0	0	0	0	0	0	0	0	0	0	–
8	6.3	25.0	37.6	**81.3**	0	0	12.5	0	25.0	0	6.3	**75.0**	0	0	12.5	6.3	6.3	8.3	AF, AN
9	**81.3**	6.3	12.5	6.3	0	0	6.3	0	0	0	0	0	6.3	7.1	43.8	50.0	12.5	0	SU
10	0	0	0	0	0	0	0	25.0	6.3	6.3	0	0	6.3	0	0	0	0	0	–
11	0	0	31.3	0	12.5	0	0	12.5	6.3	0	0	6.3	**62.5**	0	0	0	0	0	CO
12	18.8	6.3	6.3	0	6.3	0	0	25.0	**68.8**	0	0	25.0	6.3	0	0	0	0	0	OP
13	0	0	0	0	0	0	0	6.3	6.3	0	**62.5**	0	0	0	0	**75.0**	0	0	NA, RJ
14	0	6.3	25.0	0	0	0	0	0	6.3	0	0	6.3	37.5	0	0	0	0	8.3	–
15	6.3	0	25.0	0	0	0	25.0	18.8	6.3	0	0	25.0	18.8	**92.9**	18.8	0	0	0	SP
16	12.5	18.8	**62.5**	12.5	0	0	**75.0**	0	12.5	0	0	25.0	0	6.3	**87.5**	0	0	0	SA, RE, IP
17	0	0	0	0	0	0	6.3	0	6.3	0	31.3	0	0	0	0	0	0	0	–
18	0	0	0	0	0	0	6.3	0	0	0	0	0	0	0	0	0	0	0	–

Note. SU = Submissiveness, CD = Cognitive Distortion, IP = Identity Problems, AF = Affective Lability, ST = Stimulus Seeking, CP = Compulsivity, RE = Restricted Expression, CA = Callousness, OP = Oppositionality, IN = Intimacy Problems, RJ = Rejection, AN = Anxiousness, CO = Conduct Problems, SP = Suspiciousness, SA = Social Avoidance, NA = Narcissism, IA = Insecure Attachment, SH = Self-Harm.

of items loading at least 0.35 on the 18 obliquely rotated factors. On the first oblimin factor, for instance, 18.8% of the items in the Submissiveness (SU) scale load at least 0.35, whereas this percentage is 93.8 for the items of the Cognitive Distortion (CD) scale. The last column of Table 1 shows which DAPP-BQ scales have a relatively strong relationship with an oblimin factor, given our criterion that a strong association exists if a scale has at least 60% of its items loading a certain factor. Of the 18 oblimin factors, 13 have strong associations with one or more of the DAPP-BQ scales. Also taking into account the exact values of the percentages between 60 and 100, the 13 factors are (primarily) interpretable as Cognitive Distortion (F1), Stimulus Seeking (F2), Intimacy Problems (F3), Compulsivity (F4), Self-Harm (F5), Insecure Attachment (F6), Affective Lability (F8), Submissiveness (F9), Conduct Problems (F11), Oppositionality (F12), Narcissism (F13), Suspiciousness (F15), and Social Avoidance (F16). That is, of the 15 factors identified by Livesley et al. (1989), 11 were recovered again, in combination with the (later added) Self-Harm and Suspiciousness dimensions. Of the remaining four factors previously extracted (Generalized Distress, Rejection, Restricted Expression, and Callousness), the first three are at least strongly represented by one or more of the 18 currently emerging oblimin factors; however, no oblimin factor could be extracted in our investigation on which at least 60% of the items of the Callousness scale had a loading of at least 0.35.

HIGHER-ORDER FACTORS

Assuming that the 18 DAPP-BQ scales as presented by Livesley & Jackson (2002) still reflect the "true" lower-order structure of disordered personality (see also below), higher-order dimensions may be found by conducting, for instance, a principal components analysis with oblimin rotation on the inter-scale correlation matrix, retaining the number of factors with eigenvalues greater than unity. However, prior to investigating the higher-order structure, it was considered appropriate to examine the psychometric properties of the 18 DAPP-BQ scales. Table 2, column α, presents the Cronbach's internal consistency values for the 18 scales as they appeared in the total sample of 478 subjects. Although all scales are sufficiently reliable, three items (19, 196, and 261) from three scales (Affective Lability, Intimacy Problems, and Suspiciousness) with item-total scale correlations lower than 0.20 were found. It could also be demonstrated that the Dutch alpha values correlated $r = 0.80$ ($p < 0.0001$) with the Canadian values provided by Jang (see above). To further investigate the Dutch DAPP-BQ scales, their means and standard deviations were calculated, both in the total sample and for females ($n = 322$) and males ($n = 154$) separately; these values are also presented in Table 2. The last column indicates at which level of probability the means of the DAPP-BQ scales for women and men were found to differ significantly after applying *t*-tests corrected for inequality of scale variances. Compared with the Canadian norms pro-

TABLE 2. Coefficient α, Means (*M*), and Standard Deviations (*SD*) for the Dutch DAPP-BQ Scales

		Total Sample		Females		Males		
Scale	**α**	***M***	***SD***	***M***	***SD***	***M***	***SD***	***p***
Submissiveness	0.89	39.46	10.89	40.10	10.99	38.10	10.65	
Cogn. Distortion	0.90	31.53	11.84	31.69	12.25	31.18	11.01	
Identity Problems	0.92	32.67	12.45	32.46	12.60	33.12	12.18	
Affective Lability	0.88	38.23	11.41	39.22	11.77	36.21	10.39	<0.01
Stimulus Seeking	0.86	37.92	10.30	36.69	10.21	40.40	10.09	<0.001
Compulsivity	0.87	51.83	10.88	51.69	11.39	52.16	9.75	
Restr. Expression	0.86	42.49	10.78	42.39	11.17	42.79	9.94	
Callousness	0.78	30.46	7.68	28.91	7.15	33.67	7.83	<0.001
Oppositionality	0.85	36.48	9.93	36.18	10.59	37.06	8.39	
Intimacy Problems	0.85	30.73	9.46	31.26	9.68	29.68	8.97	
Rejection	0.83	39.17	9.17	37.81	8.82	42.08	9.25	<0.001
Anxiousness	0.93	39.46	13.45	40.63	13.92	37.01	12.19	<0.001
Conduct Problems	0.84	24.08	7.76	22.38	6.67	27.65	8.67	<0.001
Suspiciousness	0.88	25.64	9.43	25.00	9.42	26.99	9.40	<0.05
Social Avoidance	0.91	36.40	12.27	36.43	12.81	36.42	11.15	
Narcissism	0.88	38.12	11.13	37.73	11.36	38.87	10.70	
Insec. Attachment	0.90	38.61	12.28	39.18	12.52	37.45	11.78	
Self-Harm	0.93	15.78	7.93	15.73	8.09	15.91	7.67	

p: Two-tailed probability levels associated with significant differences in means between females and males.

vided by Jang, very similar mean and SD values were found in the Dutch sample, except for the much higher Canadian mean values on the Narcissism scale (about 8 to 10 points). No strong correlations were found between the Dutch DAPP-BQ scales on the one hand, and city size, age, and education on the other, the highest correlations being $r = 0.10$ between Conduct Problems and city size, $r = -0.27$ between Stimulus Seeking and age, and $r = -0.18$ between Suspiciousness and education.

To investigate the higher-order structure of the Dutch DAPP-BQ, four principal components analyses were conducted in the total sample. In two of these investigations, all 18 scales were analyzed, rotating the first four components by means of oblimin and varimax, respectively. Similar analyses were conducted in the two remaining investigations; in these analyses the principal components were extracted after omitting the Self-Harm scale with its very high skewness value of 2.68 (kurtosis = 7.26). The decision to retain four factors was always in agreement both with the eigenvalues >1 criterion and with the scree test. As the factors extracted in a certain analysis were found to correlate almost 1.00 with the factors extracted in the three remaining analyses, it seems arbitrary which factor solution will be adopted. However, we decided to opt for the factor structure found after oblimin rotation and without including the Self-Harm scale for two reasons. First, Livesley himself seems to favor oblimin-rotated factors (see, e.g., Livesley et al., 1998) and, second, although we have to compare the Dutch factor loadings with the structure matrix loadings made available by Jang (see above), it might still be of interest to inspect the loadings of at least 0.40 presented by Livesley et al. (1998). However, the latter load-

ings were derived by conducting a principal components analysis over the DAPP-BQ scales without including the scale for Self-Harm.

Table 3 (columns OF1, OF2, OF3, and OF4) gives the Dutch structure matrix loadings after oblimin rotation with Kaiser normalization of the first four components; these components explain 71.5% of the total variance. Table 3 (columns OC1, OC2, OC3, and OC4) also gives the structure matrix loadings on the oblimin-rotated factors as found by Jang, analyzing the 17 aforementioned DAPP-BQ scales in a general population sample of 942 subjects. Similar to our previous investigation (Van Kampen, 2002), the OF1 factor seems especially related (saturations ≥ 0.80) to the dimensions Anxiousness, Cognitive Distortion, Identity Problems, Submissiveness, Affective Lability, and Social Avoidance. Other scales that load highly (≥ 0.70 but <0.80) on OF1 are Oppositionality, Suspiciousness, and Insecure Attachment. Like its Canadian counterpart OC1 and the first oblimin-rotated factor extracted by Livesley et al. (1998), this factor appears "to represent unstable and reactive tendencies, dissatisfaction with the self and life experiences, and interpersonal problems" (Livesley et al., 1998, p. 943). Because, compared with OC1, the Tucker factor similarity coefficient for OF1 proved to be very high (0.99), we applied the same label (Emotional Dysregulation) as used by Livesley to the first Dutch oblimin factor. Factor OF2 is characterized by a high saturation from Callousness (≥0.80) and slightly smaller loadings (≥0.70) from Rejection, Conduct Problems, and Stimulus Seeking. Like OC2 and the second oblimin-rotated factor by Livesley et al. (1998), OF2 can be interpreted as Dissocial Behavior. The coefficient of factor similarity for OF2 compared with OC2 also proved to be 0.99. A very satisfying, but unexpected (see Introduction) result

TABLE 3. Oblimin-Rotated Principal Component Structure Loadings for 17 Scales of the DAPP-BQ in Canada and the Netherlands

	Canadian Oblimin Factors				Dutch Oblimin Factors			
Scale	**OC1**	**OC2**	**OC3**	**OC4**	**OF1**	**OF2**	**OF3**	**OF4**
Submissiveness	**0.78**	0.02	0.32	–0.08	**0.83**	0.16	0.10	0.09
Cogn. Distortion	**0.81**	0.38	0.31	–0.05	**0.85**	0.35	0.24	–0.02
Identity Problems	**0.83**	0.28	**0.50**	–0.05	**0.85**	0.34	**0.40**	–0.01
Affective Lability	**0.79**	**0.41**	0.01	0.15	**0.83**	0.33	0.08	0.16
Stimulus Seeking	0.20	**0.73**	–0.10	–0.30	0.28	**0.70**	–0.20	–0.30
Compulsivity	0.05	–0.11	0.05	**0.90**	0.22	0.00	0.08	**0.90**
Restr. Expression	**0.42**	0.11	**0.82**	–0.03	**0.60**	0.13	**0.67**	0.10
Callousness	0.39	**0.80**	0.31	–0.05	0.34	**0.81**	0.19	–0.05
Oppositionality	**0.71**	**0.43**	0.27	**–0.42**	**0.73**	**0.58**	0.12	–0.24
Intimacy Problems	0.13	0.06	**0.83**	0.02	0.16	0.01	**0.84**	0.03
Rejection	0.20	**0.80**	–0.08	0.23	0.11	**0.76**	–0.13	0.32
Anxiousness	**0.89**	0.22	0.28	0.07	**0.92**	0.25	0.17	0.17
Conduct Problems	0.25	**0.74**	0.11	–0.25	0.32	**0.75**	0.07	–0.21
Suspiciousness	**0.64**	**0.60**	0.37	0.28	**0.72**	**0.49**	0.35	0.19
Social Avoidance	**0.76**	0.17	**0.57**	–0.00	**0.82**	0.24	**0.40**	0.07
Narcissism	**0.65**	**0.58**	–0.06	0.03	**0.56**	**0.58**	–0.25	0.22
Insec. Attachment	**0.75**	0.30	–0.10	0.16	**0.72**	0.24	–0.24	0.18
% Accounted Variance	41.0	13.4	9.0	7.6	43.5	13.2	8.1	6.7

Note. Loadings greater than or equal to 0.40 are printed in bold.

emerged with respect to OF3. Unlike what was found by Van Kampen (2002), the third Dutch factor, which showed a loading of 0.84 from the Intimacy Problems scale, proved to be almost identical to OC3 (Tucker congruence value = 0.96). The similarity with Livesley et al.'s (1998) third oblimin-rotated factor is also apparent. Hence, in agreement with Livesley's interpretation of that factor, OF3 was labeled Inhibition. Finally, the Canadian label Compulsivity was considered by us to be applicable to OF4, because OF4 and OC4 (which were both characterized by a saturation of 0.90 of the lower-order Compulsivity scale) gave rise to a Tucker factor similarity coefficient of 0.95. Compared with Livesley et al.'s (1998) fourth oblimin-rotated factor, the similarity with OF4 is also obvious.

DAPP-BQ-5DPT RELATIONS

Table 4 shows the correlations and multiple correlations (R) of the oblimin-rotated DAPP-BQ factors OF1, OF2, OF3, and OF4, and the individual DAPP-BQ scales (dependent variables) with the Insensitivity (S), Extraversion (E), Neuroticism (N), Orderliness (G), and Absorption (A) scales of the 5DPT (predictor variables). As already indicated, these correlations and R values were obtained in a subsample of 284 subjects.

Obviously, the correlations in Table 4 are mainly as expected. OF1 (Emotional Dysregulation) correlates clearly with N ($r = 0.73$; $p < 0.01$), as do the individual DAPP-BQ scales (Anxiousness, Cognitive Distortion, Identity Problems, Submissiveness, Affective Lability, Social Avoidance, Oppo-

TABLE 4. Correlations and Multiple Correlations between the 5DPT and the Factors and Scales of the Dutch DAPP-BQ

Factor/Scale	S	E	N	G	A	*R*
OF1 Emot. Dysregulation	0.19**	–0.34**	0.73**	0.03	0.22**	0.78
OF2 Dissocial	0.57**	0.20**	0.01	0.06	–0.23**	0.61
OF3 Inhibition	0.06	–0.49**	0.12*	0.10	–0.21**	0.53
OF4 Compulsivity	–0.08	–0.08	0.20**	0.72**	0.02	0.73
Submissiveness	0.05	–0.26**	0.60**	0.09	0.17**	0.62
Cogn. Distortion	0.17**	–0.29**	0.57**	–0.04	0.33**	0.66
Identity Problems	0.20**	–0.40**	0.66**	0.04	0.06	0.72
Affective Lability	0.31**	–0.25**	0.68**	–0.01	0.33**	0.76
Stimulus Seeking	0.39**	0.35**	0.00	–0.38**	0.21**	0.59
Compulsivity	–0.09	–0.12*	0.29**	0.74**	0.06	0.76
Restr. Expression	0.17**	–0.50**	0.39**	0.09	–0.03	0.59
Callousness	0.43**	0.01	0.03	–0.12*	0.02	0.45
Oppositionality	0.38**	–0.17**	0.40**	–0.29**	0.15**	0.62
Intimacy Problems	0.04	–0.29**	0.15*	0.06	–0.12*	0.32
Rejection	0.48**	0.17**	–0.07	–0.01	0.07	0.52
Anxiousness	0.20**	–0.29**	0.78**	0.09	0.22**	0.80
Conduct Problems	0.38**	0.07	0.09	–0.21**	0.09	0.42
Suspiciousness	0.26**	–0.23**	0.44**	0.07	0.05	0.51
Social Avoidance	0.13*	–0.57**	0.59**	0.03	0.10	0.74
Narcissism	0.32**	0.11	0.34**	–0.05	0.32**	0.54
Insec. Attachment	0.05	–0.11	0.54**	0.09	0.08	0.54
Self-Harm	0.19**	–0.14*	0.41**	–0.03	0.09	0.45

*$p < 0.05$, **$p < 0.01$.
Note. S = Insensitivity, E = Extraversion, N = Neuroticism, G = Orderliness, A = Absorption.

sitionality, Suspiciousness, and Insecure Attachment) that strongly relate to OF1. Similarly, OF2 (Dissocial) shows its highest correlation with S (r = 0.57; $p < 0.01$); this also applies to Callousness, Rejection, Conduct Problems, and Stimulus Seeking, which are subfactors of OF2. For the Dutch Inhibition factor (OF3) a negative correlation with E was observed (r = –0.49; $p < 0.01$) that was also found for the OF3-related Intimacy Problems scale. However, other scales (Identity Problems, Restricted Expression, and Social Avoidance), which are associated to a lesser degree with OF3, were found to correlate even stronger with (low) Extraversion. A correlation of 0.72 ($p < 0.01$) emerged between G and Compulsivity (OF4); the lower-order Compulsivity scale showed almost the same correlation with G. No strong relationships were found for A or Absorption. However, it is noteworthy that of the significant correlations with individual DAPP-BQ scales, one of the two highest correlations ($r = 0.33$; $p < 0.01$) emerged for the scale for Cognitive Distortion. Similarly, it is interesting to note that of the four-higher order factors of the DAPP-BQ, three factors (Emotional Dysregulation, Dissocial, and Inhibition) correlated significantly with A. Finally, we conclude from Table 4 that the R values for the 18 DAPP-BQ scales range from 0.32 to 0.80, with a mean value of $R = 0.59$. Comparing the individual R values in Table 4 with the values reported by Schroeder et al. (1992) for 16 of the 18 DAPP-BQ scales, using as predictors the 5 NEO-PI domain scores (Costa & McCrae, 1985), both sets of values are relatively similar. In fact, both sets were found to correlate 0.74 ($p < 0.001$) with each other.

DISCUSSION

In this paper, four issues were addressed: (a) the higher-order structure of a revised version of the Dutch DAPP-BQ, (b) the lower-order structure of that instrument, (c) the reliability of the 18 DAPP-BQ scales in terms of Cronbach's alpha coefficient of internal consistency, and (d) the validity of the DAPP-BQ, looking at the correlations between the factors and scales from that instrument and the higher-order personality scales of the 5DPT or Five-Dimensional Personality Test (Van Kampen, 2005a). The results showed that the new translation of the DAPP-BQ was able to reproduce the same four higher-order factors (Emotional Dysregulation, Dissocial, Inhibition, and Compulsivity) as found by Jang in Canada in a large general population sample (Jang, personal communication, February 8, 2000) and also in other studies conducted both in Canada (Schroeder et al., 1994; Livesley et al., 1998) and in the U.S., Germany, and China (Bagge & Trull, 2003; Pukrop et al., 2001; Zheng et al., 2002). Opting for Jang's (unpublished) study as the focal point of comparison for the findings of the current study for several reasons (e.g., the availability of a full matrix of oblimin-rotated structure loadings for at least 17 scales), the identity of the Dutch factors compared with the Canadian ones was convincingly demonstrated by find-

ing Tucker coefficients of factor similarity ranging from 0.95 to 0.99. Although this concordance is rewarding, the fact that our OF3 factor (see Table 3) equals Livesley's Inhibition dimension was unexpected. Given the possibility of an updated version of the Dutch DAPP-BQ, we originally anticipated a strong convergence with Livesley's Inhibition factor. However, noting that of the 53 items modified in the present version of the DAPP-BQ only 13 items formed part of the four lower-order scales (Oppositionality, Social Avoidance, Restricted Expression, and Identity Problems) that proved to have unexpected loadings in the original Dutch investigation (Van Kampen, 2002), this prediction had to be discarded. Moreover, the fact that of the 13 mentioned items, only 5 belong to the 64 items in the scales for Intimacy Problems, Social Avoidance, Restricted Expression, and Identity Problems that are specifically involved in the content of Livesley's Inhibition factor makes this expectation even more unlikely. Although it seems clear that Zheng et al.'s (2002, p. 479) suggestion that the discrepancy between the Canadian Inhibition factor and the former Dutch Intimacy Problems factor might be explained in terms of cultural influences can no longer be maintained, the possibility remains that the revisions made particularly in the Dutch Oppositionality scale (but also in, e.g., Stimulus Seeking) may have had an impact on their correlations with all other scales, therefore resulting in an alteration of the factor structure of the Dutch DAPP-BQ. To determine whether this possibility holds, the correlation matrices previously and currently obtained were systematically compared by testing whether the two *r* values associated with a certain pair of DAPP-BQ scales differed significantly ($p < 0.05$). Applying *t*-tests to the (*z*-converted) *r* values, significant differences were mainly observed for Stimulus Seeking (regarding its correlations with Cognitive Distortion, Affective Lability, Compulsivity, Restricted Expression, Anxiousness, and Narcissism) and Intimacy Problems (regarding its correlations with Submissiveness, Compulsivity, Rejection, Anxiousness, Suspiciousness, and Social Avoidance). Compulsivity and Restricted Expression also showed a relatively large number (four in each case) of significantly different correlations with other scales. Given these differences in the correlation matrices for the two Dutch versions of the DAPP-BQ, it seems indeed feasible that at least some modifications in the current version of the DAPP-BQ may have had an effect on its structure. With respect to the current emergence of the Dutch Inhibition factor (that is primarily characterized, just as the Canadian one, by high loadings from Intimacy Problems and Restricted Expression), it seems particularly notable that of the six, respectively four pairs of significantly different *r* values regarding Intimacy Problems and Restricted Expression in the previous and current investigations, four pairs of correlations (Intimacy Problems with Rejection and Suspiciousness, and Restricted Expression with Stimulus Seeking and Rejection) relate to scales that are modified (in addition to the changes made in the Restricted Expression scale itself). Hence, at least a partial explanation for the emergence of the Dutch Inhibition factor seems possible in terms of

the revisions applied to the Dutch DAPP-BQ, despite the fact that these revisions were confined to scales that were not among those within the "problematic" Intimacy Problems factor.

With respect to the lower-order structure of the DAPP-BQ, our results differ to some extent from those originally obtained by Livesley et al. (1989). Of the 15 to 18 factors to be expected, only 11 (Cognitive Distortion, Stimulus Seeking, Intimacy Problems, Compulsivity, Insecure Attachment, Affective Lability, Submissiveness, Conduct Problems, Oppositionality, Narcissism, and Social Avoidance) plus 2 factors (the later added Self-Harm and Suspiciousness dimensions) could be recovered again in a principal components analysis with oblimin rotation of all 282 items contained in the 18 scales of the DAPP-BQ. However, of the 4 or 5 remaining factors to be expected (Rejection, Restricted Expression, Callousness, and Generalized Distress [=Anxiousness and Identity Problems]), only Callousness was not recoverable, whereas the other three or four expected dimensions proved to be strongly represented by at most three of the 18 extracted oblimin factors. So, the agreement of the presently established lower-order structure of the DAPP-BQ with the structure as originally identified by Livesley et al. (1989) in a combined sample of 158 personality-disordered patients and 274 general population subjects is impressive. Furthermore, it is not totally unexpected that discrepancies occur between Livesley and colleagues' results and those in the present study. As already indicated, the 15-factor structure demonstrated by Livesley might be questioned because the degree of structural invariance between the two subsamples seems somewhat overrated. In addition, the factor analysis in the clinical group (the most important group to arrive at a proper description of the lower-order structure of disordered personality) was based on a subjects-to-variables ratio that was clearly too low (Barrett & Kline, 1981). A rather low ratio also seems present in the current lower-order study, which may have led to additional discrepancies, such as the failure in our study to obtain a Callousness factor. On the other hand, a comparison (both conceptually and in relation to the Five-Factor Model) between the 18 DAPP-BQ dimensions proposed by Livesley & Jackson (2002) and the 22 symptom clusters derived by Clark (1990, 1993a) in a factor analytic investigation of all DSM-III (APA, 1980) personality disorder criteria, plus criteria from other personality disorder conceptualizations and selected Axis I disorders (e.g., generalized anxiety disorder) with trait-like manifestations (see Clark & Livesley, 2002), clearly showed a high degree of convergence, despite slightly different approaches followed by Livesley and Clark. Thus, summarizing the above, it may be assumed (as was done in the Results section) that the 18 DAPP-BQ scales present at least a reasonable if not a good picture of the lower-order structure of disordered personality. This also implies that the DAPP-BQ Emotional Dysregulation, Dissocial, Inhibition, and Compulsivity dimensions that were found in the present study must be regarded as the true higher-order factors within this domain of psychopathology.

The individual scales of the present Dutch version of the DAPP-BQ demonstrated good psychometric properties in terms of internal consistency. The coefficient alpha reliabilities ranged from 0.78 for Callousness to 0.93 for Anxiousness and Self-Harm, with a mean value of 0.88. Only three items were found with item-total scale correlations less than 0.20. In addition, by correlating the Dutch alpha values with the Canadian ones provided by Jang, a correlation of $r = 0.80$ was obtained, which is the same value as observed in our previous investigation (Van Kampen, 2002).

With respect to the validity findings obtained for the Dutch DAPP-BQ, we must first emphasize the precise reasons to administer the 5DPT (Van Kampen, 2005a) to a subgroup of the present sample. Like the 4DPT (Van Kampen, 1997) in our previous DAPP-BQ study, the 5DPT was primarily administered because the 5DPT N (Neuroticism), S (Insensitivity), E (Extraversion), G (Orderliness), and A (Absorption) scales were found (Van Kampen, 2005a) to correlate substantially with scales measuring the five dimensions of the Five-Factor Model. As four of the Five-Factor Model dimensions (Neuroticism, Agreeableness, Extraversion, and Conscientiousness) have been found to align moderately to strongly with the DAPP-BQ factors Emotional Dysregulation, Dissocial (negative), Inhibition (negative), and Compulsivity (see, e.g., Widiger, 1998; Larstone, Jang, Livesley, Vernon, & Wolf, 2002), the validity of the Dutch DAPP-BQ can be demonstrated by showing similar correlations between its higher-order factors and the N, S, E (negative), and G scales of the 5DPT. Furthermore, these correlations may be anticipated in the light of a recent investigation by O'Connor (2005a; see also below). Determining the number of components existing in each of the 33 previously published personality disorder correlation matrices according to the eigenvalues >1 criterion and other decision rules, and requiring that each disorder has a high loading on at least one factor, it was established in this study that the 10 personality disorders in the DSM-IV (APA, 1994) can best be described in terms of four factors that were obtained after rotating the 33 principal component loading matrices to maximum congruence and applying varimax rotation to the matrix of the means of the individual loadings. Because O'Connor (2005a) also demonstrated that the maximum congruence structure derived from *interbattery* factor analyses of 20 Five-Factor Model-personality disorder correlation matrices clearly resembled the four Five-Factor Model dimensions mentioned above, the four personality disorder factors could be easily interpreted as abnormal variants of the dimensions Neuroticism, (low) Agreeableness, Extraversion, and Conscientiousness, respectively. In addition to these considerations, the 5DPT was administered to the present sample because the Absorption factor, noting the finding of other, albeit modest, relationships with psychotic-like features (Van Kampen, 2005a), was expected to correlate with Cognitive Distortion. Finding that Emotional Dysregulation, Dissocial, Inhibition, and Compulsivity correlated 0.73, 0.57, –0.49, and 0.72, respectively, with Neuroticism, Insensitivity, Extraversion, and Orderliness, the anticipation that the higher-order

factors of the DAPP-BQ align with the 5DPT dimensions N, S, E, and G was clearly corroborated. At least three of these convergent validity coefficients seem to be as high as one obtains with measures that are purportedly assessing precisely the same personality disorder constructs. The only validity coefficient that did not align very well was Inhibition with (low) Extraversion, but even here they correlated to a moderate extent. A significant correlation of $r = 0.33$ was also observed between 5DPT A and Cognitive Distortion; although, as anticipated, relatively weak, this correlation turned out to be the highest one among the correlations between A and the various subscales of the DAPP-BQ. The importance of A as a "fifth" dimension is further indicated by the finding that three higher-order (Emotional Dysregulation, Dissocial, and Inhibition) and eight lower-order DAPP-BQ variables are significantly correlated with A.

As already noted above, it was concluded by O'Connor (2005a) that the best structure for DSM-IV personality disorders appeared to be a four-factor structure that clearly resembled the Five-Factor Model dimensions Neuroticism, low Agreeableness, low Extraversion, and Conscientiousness. In his study, the first factor is characterized by high loadings from dependent, avoidant, and borderline personality disorders. The second factor has loadings from antisocial, narcissistic, paranoid, and histrionic personality disorders. Schizoid, schizotypal, and avoidant personality disorders load negatively, and histrionic personality disorder positively on the third factor. The fourth factor is only defined by a high loading from obsessive-compulsive personality disorder. If we compare these factors with the higher-order DAPP-BQ Emotional Dysregulation, Dissocial, Inhibition, and Compulsivity dimensions, both similarities and discrepancies may be noted. Indeed, like O'Connor's (2005a) first factor, Emotional Dysregulation resembles, according to Livesley et al. (1998, p. 944), the DSM-IV category of borderline personality disorder, and a high loading from Social Avoidance on both OF1 (see Table 3) and its counterparts in Canada, the U.S., Germany, and China (Schroeder et al., 1994; Livesley et al., 1998; Bagge & Trull, 2003; Pukrop et al., 2001; Zheng et al., 2002) is also apparent. Similarly, the high loadings on OF2 from, for example, Conduct Problems and Narcissism, and on OF4 from Compulsivity, correspond well with O'Connor's (2005a) characterization of his second and fourth disorder dimensions. However, the alignment of O'Connor's third dimension with Inhibition seems more problematic. Although OF3 is typified by high loadings from Intimacy Problems and Restricted Expression that almost by definition are expected to show elevated scores in patients suffering from schizoid, schizotypal, and avoidant personality disorders, there seems to be no (inverse) relationship with respect to histrionic personality disorder. In agreement with the rather low correlation as observed in the present study between 5DPT E and Inhibition (see above), the latter factor appears somewhat limited in scope compared with Extraversion. As Livesley et al. (1998) have put it, "Inhibition shows some correspondence to introversion-extraversion although it is more specific" (p. 945). Because 5DPT E was

found (Van Kampen, 2005a) in a large general population sample to correlate 0.78 with the E scale of Costa & McCrae's (1992) NEO-FFI, the modest correlation between Inhibition and (low) Extraversion in the present study does not appear to rest on a particular characteristic of Van Kampen's Extraversion scale.

Of far greater importance, other criticisms may be introduced against the suggestion that the Five-Factor Model provides a suitable framework for classifying personality disorder (e.g., Costa & Widiger, 2002). According to Livesley & Jang (2005), for instance, "the five factors do not appear to capture all aspects of personality pathology. . . . The primary or facet structure [see Costa & McCrae, 1995] in particular needs further development before it captures clinical concepts" (p. 261). In our view, these criticisms do clearly cut ice. It has been argued, for instance, that the ability of the Five-Factor Model to describe clinical Axis II phenomena is necessarily limited because very few affective and evaluative terms were used in its construction (e.g., Davis & Millon, 1993). In addition, the Five-Factor Model has been criticized because of its operation at a very global level in the trait hierarchy, leading to the characterization of personality pathology in only very broad terms (Butcher & Rouse, 1996; Clark, 1993b). Although lower-order traits or facet scores in these domains have been found helpful or even necessary in arriving at a more detailed level of description of personality pathology (e.g., Widiger, 2000; Bagby, Costa, Widiger, Ryder, & Marshall, 2005), these lower-level constructs have no basis in factor analytic research or formal theorizing (Block, 1995), and the relevance of these facets regarding the description of personality disorder pathology stems only from a comparison of these facets with diagnostic criteria and associated features listed for Axis II disorders in the DSM-III-R (APA, 1987) and DSM-IV (APA, 1994) (see, e.g., Widiger, Trull, Clarkin, Sanderson, & Costa, 1994). Add to this that the observed Five-Factor Model-personality disorder associations were recently found to depart to some extent from linearity along personality disorder continua (O'Connor, 2005b)—thus again demonstrating the only limited suitability of the Five-Factor Model to give a proper description of personality features that clearly lie outside the normal range—and one must conclude that the DAPP-BQ Emotional Dysregulation, Dissocial, Inhibition, and Compulsivity dimensions, rather than the Five-Factor Model or 5DPT Neuroticism, (low) Agreeableness/Insensitivity, (low) Extraversion, and Conscientiousness/Orderliness dimensions, must be regarded as the true higher-order factors within the domain of disordered personality.

Further demonstrating the distinction between psychopathological factors and factors of normal personality, Table 4 shows that not all scales of the Dutch DAPP-BQ are easily accommodated by the five basic 5DPT dimensions of normal personality (see also Livesley & Jang, 2005). Looking at the *R* values reported by Schroeder et al. (1992) for 16 of the 18 DAPP-BQ scales, a similar conclusion, but now in terms of the NEO-PI domain scales as predictor variables, might be drawn. Indeed, Schroeder et al.'s

(1992) and our set of *R* values were found to correlate substantially. Combining our results with those found by Schroeder et al. (1992), normal personality dimensions appeared to have low predictive power particularly in the case of the DAPP-BQ Conduct Problems, Insecure Attachment, Intimacy Problems, and Restricted Expression scales. Although not mentioned by Schroeder et al. (1992), we may, perhaps, add Self-Harm to this list.

With the conclusion that the DAPP-BQ, rather than the 5DPT or the NEO-PI-R (Costa & McCrae, 1992), provides a suitable and integrating framework for disordered personality, the present finding that the revised version of the Dutch DAPP-BQ shows the same higher-order factor structure as originally observed in Canada must be greatly appreciated. Similarly, the at least partial correspondence with the lower-order factor structure as described by Livesley et al. (1992) and Schroeder et al. (1992) is most welcome. Hence, also noting the demonstrated reliability and convergent validity of the instrument, the Dutch version of the DAPP-BQ, like the original Canadian inventory, appears to be a very valuable instrument diagnostically.

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